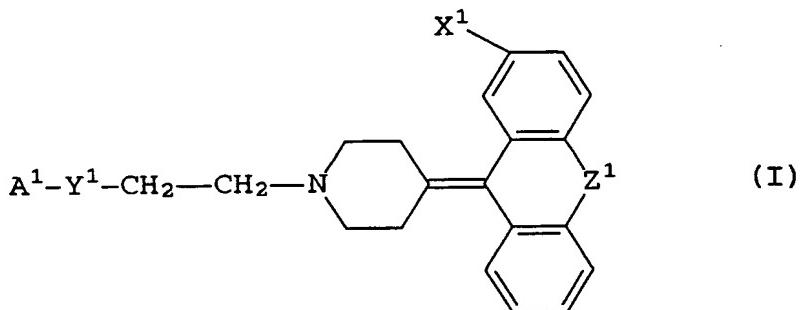


WHAT IS CLAIMED AS NEW AND IS DESIRED TO BE SECURED BY LETTERS
PATENT OF THE UNITED STATES IS:

1. A method of treating or preventing a disease caused by serotonin comprising administering effective amount of a piperidine derivative of general formula (I) or pharmaceutically acceptable salt thereof:



wherein A¹ represents an unsubstituted or substituted pyridyl, piperidyl, piperidino, morpholinyl, morpholino, thiomorpholinyl, thiomorpholino or piperazinyl group, a substituted alkyl group having from 1 to 8 carbon atoms, a substituted cycloalkyl group having from 4 to 8 carbon atoms, or an unsubstituted or substituted alkoxy group having 1 to 8 carbon atoms,

X^1 is a hydrogen atom or a halogen atom,

15 Y¹ is -CONH-, -NHCO-, -CONHCH²- , -(CH₂)_n- or -COO- ,

wherein n is an integer of from 0 to 4, and

Z^1 is $-\text{CH}=\text{CH}-$, $-\text{S}-\text{CH}_2-$, $-\text{S}-$ or $-\text{CH}_2-\text{CH}_2-$.

2. The composition of claim 1, wherein A¹ has a substituent and said substituent is

wherein R¹ is a hydrogen atom, an alkyl or alkoxy group having from 1 to 6 carbon atoms, an amino group which may be substituted by an alkyl group having from 1 to 6 carbon atoms, or an acylaminoalkyl group having from 1 to 6 carbon atoms,

5 and

R² and R³, which may be the same or different, each represents a hydrogen atom, an alkyl, acyl or alkoxy carbonyl group having from 1 to 6 carbon atoms, or an aminocarbonyl group which may be substituted by an alkyl group having from 1

10 to 6 carbon atoms.

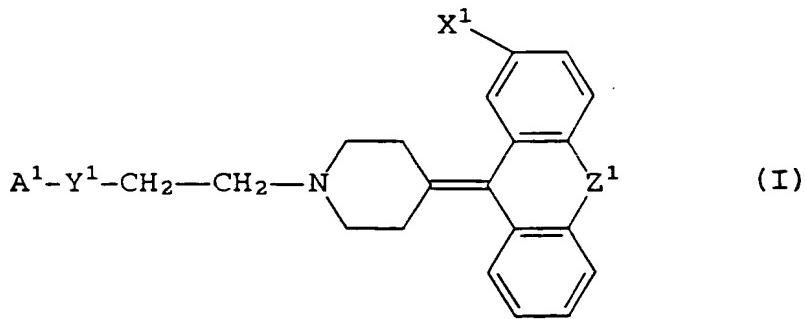
3. The method of claim 1, wherein said substituent on A¹ is formyl, acetyl, propionyl, butyryl, isobutyryl, valeryl, isovaleryl, pivaloyl, carbamoyl, N-methylcarbamoyl, N-ethylcarbamoyl, N-propylcarbamoyl, N,N-dimethylcarbamoyl, N,N-diethylcarbamoyl, N-formylglycyl, N-acetylglycyl, N-formyl-β-alanyl, N-acetyl-β-alanyl, N-methyl-N-formyl, N-methyl-N-acetyl, N-methyl-N-propionyl, N-ethyl-N-formyl or N-ethyl-N-acetyl.

4. The method of claim 1, wherein Y¹ is a -CONH-.

20 5. The method of claim 1, wherein Z¹ is a -CH=CH-.

6. The method of claim 1, wherein the piperidine derivative is 1-formyl-N-(2-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1piperidinyl)ethylisonicotamide.

25 7. A method of treating or preventing platelet aggregation comprising administering an effective amount of a piperidine derivative of the formula (I) or a salt thereof or an active ingredient of a pharmaceutical composition:



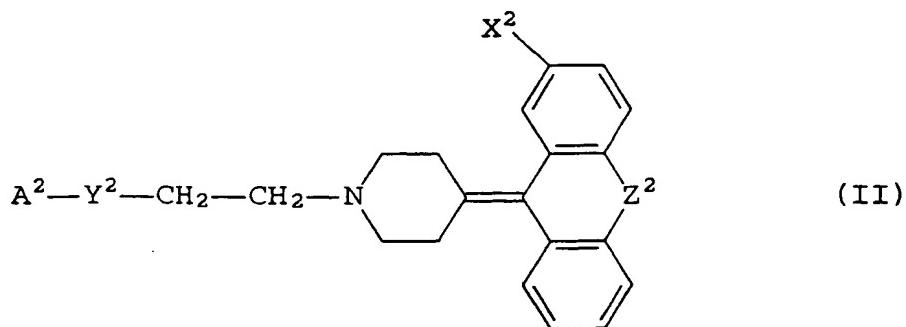
wherein A¹ represents an unsubstituted or substituted pyridyl, piperidyl, piperidino, morpholinyl, morpholino, thiomorpholinyl, thiomorpholino or piperazinyl group, a substituted alkyl group having from 1 to 8 carbon atoms, a substituted cycloalkyl group having from 4 to 8 carbon atoms, or an unsubstituted or substituted alkoxy group having 1 to 8 carbon atoms,

5 X¹ is a hydrogen atom or a halogen atom,

Y¹ is -CONH-, -NHCO-, -CONHCH²-, -(CH₂)_n- or -COO-,
10 wherein n is an integer of from 0 to 4, and
Z¹ is -CH=CH-, -S-CH₂-, -S- or -CH₂-CH₂-.

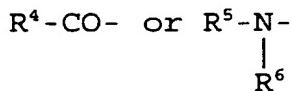
8. The method of claim 7, wherein the piperidine derivative is 1-formyl-N-(2-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1piperidinyl)ethylisonicotinamide.

15 9. A piperidine derivative represented by the general formula (II) or a salt thereof:



wherein A² represents an unsubstituted or substituted piperidino, morpholinyl, morpholino, thiomorpholinyl, thiomorpholino or piperazinyl group, a substituted alkyl group having from 1 to 8 carbon atoms, a substituted cycloalkyl group having from 4 to 8 carbon atoms, or an unsubstituted or substituted alkoxy group having 1 to 8 carbon atoms,

wherein suitable substituents include:



10

wherein R⁴ represents an alkyl or alkoxy group having from 1 to 6 carbon atoms, an amino group which may be substituted by an alkyl group having from 1 to 6 carbon atoms, or an acylaminoalkyl group having from 1 to 6 carbon atoms.

15 R⁵ and R⁶, which may be the same or different, each
represents a hydrogen atom, an alkyl, acyl or alkoxy carbonyl
group having from 1 to 6 carbon atoms, or an aminocarbonyl
group which may be substituted by an alkyl group having from 1
to 6 carbon atoms, and . . .

20 X² is a hydrogen atom or a halogen atom,
 Y² is -CONH-, -NHCO-, -CONHCH²-, -(CH₂)_n- or -COO-,
 wherein n is an integer of from 0 to 4, and
 Z² is -CH=CH-, -S-CH₂- , -S- or -CH₂-CH₂- .

10. The piperidine derivative of claim 9, wherein A² is
25 substituted with a substituent selected from the group
consisting of acetyl, propionyl, butyryl, isobutyryl, valeryl,
isovaleryl, pivaloyl, carbamoyl, N-methylcarbamoyl, N-

ethylcarbamoyl, N-propylcarbamoyl, N,N-dimethylcarbamoyl, N,N-diethylcarbamoyl, N-formylglycyl, N-acetylglycyl, N-formyl- β -alanyl, N-acetyl- β -alanyl, N-methyl-N-formyl, N-methyl-N-acetyl, N-methyl-N-propionyl, N-ethyl-N-formyl, and N-ethyl-N-acetyl.

5

11. The piperidine derivative of claim 9, wherein Y² is a group -CONH-.

12. The piperidine derivative of claim 9, wherein Z² is a group -CH=CH-.

10 13. A compound selected from the group consisting of 1-methoxycarbonyl-N-(2-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)1-piperidinyl)ethylisonipeptamide, N-(2-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1-piperidinyl)ethylisonipeptamide, 15 1-acetyl-N-(2-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1-piperidinyl)ethylisonipeptamide, 1-t-butoxycarbonyl-N-(2-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1piperidinyl)ethylisonipeptamide, 1-carbamoyl-N-(2-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1- 20 piperidinyl)ethylisonipeptamide, 1-(N,N-dimethylcarbamoyl)-N-(2(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1piperidinyl))ethylisonipeptamide, 1-(N-acetylglucyl)-N-(2-(4(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1piperidinyl))ethylisonipeptamide, 25 N-(2-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)piperidinyl))ethylpeptamide,

- N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-piperidinyl))
ethyl- (N-acetyl) pipecolamide,
1-formyl-4- ((2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl) ethylcarbamoyl) piperazine,
5 N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-piperidinyl))
ethyl-4-aminocyclohexanecarboxamide,
N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-piperidinyl))
ethyl-4-acetylamino cyclohexanecarboxamide,
N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-piperidinyl))
10 ethyl-4- (1-t-butoxycarbonylamino) cyclohexanecarboxamide,
4-5H-dibenzo [a,d] cyclohepten-5-ylidene)) 1-2-ethoxycarbonyl-
amino) ethyl) piperidine,
4- (5H-dibenzo [a,d] cyclohepten-5-ylidene-1- (2-t-butoxy-
carbonylamino) ethyl) piperidine,
15 N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl) ethyl-1- (1-amino) cyclohexanecarboxamide,
N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-piperidinyl))
ethyl-1- (1-acetylamino) cyclohexanecarboxamide,
N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
20 piperidinyl) ethyl-1- (1-t-butoxycarbonylamino)
cyclohexanecarboxamide,
N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl) ethyl-1- (formylamino) cyclohexanecarboxamide,
N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
25 piperidinyl) ethyl-1- (1-N,N-dimethylcarbamoylamino)
cyclohexanecarboxamide,

N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl)) ethyl-4-aminobutyramide,

N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -piperidinyl))
ethyl-4-formylaminobutyramide,

5 N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl)) ethyl-4-acetylaminobutyramide,

N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl)) ethyl-4-t-butoxycarbonylaminobutyramide,

N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl)) ethyl-4- (N,N-dimethylcarbamoylamino)
butyramide,

N- (2 (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl)) ethyl-4- (N-methylamino) butyramide,

N- (2- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl)) ethyl-4- (N-methyl-t-butoxycarbonylamino)
butyramide,

1-formyl-N- (3- (4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1-
piperidinyl)) propylisonipecotamide,

4- (5H-dibenzo [a,d] cyclohepten-5-ylidene) -1 (3-t-butoxycarbonyl
20 aminopropyl) piperidine,

1- (3-aminopropyl) -4- (5H-dibenzo [a,d] cyclohepten-5-
ylidene) piperidine,

1-formyl-isonipecotic acid 2- (4- (5H-dibenzo [a,d] cyclohepten-5-
ylidene) -1-piperidinyl)) ethyl ester,

25 1- (2-aminoethyl) -4- (10,11-dihydro-5H-dibenzo [a,d] cyclohepten-
5-ylidene) piperidine,

4- (10,11-dihydro-5H-dibenzo [a,d] cyclohepten-5-ylidene) -1- (2-t-

butoxycarbonylamino)ethyl)piperidine,
1-formyl-N-(2-(4-(10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-
ylidene)-1-piperidinyl)ethylisonipecotamide,
1-(2-aminoethyl)-4-(9-thioxanthinidene)piperidine,
5 4-(9-thioxanthinidene)-1-((2-t-butoxycarbonylamino)ethyl)
piperidine,
1-formyl-N-(2-(4-(9-thioxanthinidene)piperidinyl))
ethylisonipecotamide,
1-formyl-N-(2(4-(11-H-dibenzo[b,e]thiepin-2-fluoro-11-
10 ylidene)-1-piperidinyl)ethylisonipecotamide,
1-(4-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1-
piperidinyl)butyl)morpholine,
1-(4-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1-
piperidinyl)butyl)thiomorpholine,
15 1-(4-(4-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-1-
piperidinyl)pentyl)morpholine,
1-(4-(4-(10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-ylidene)-
1-piperidinyl)butyl)piperidine and
1-(4-(4-(9-thioxanthilidene)piperidinyl)butyl)morpholine.